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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,536	10/09/2003	Fred A. Fensel	GARL 2 13447-1	2612

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EXAMINER

NORDMEYER, PATRICIA L

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/683,536	Applicant(s) FENSEL ET AL.	
	Examiner Patricia L. Nordmeyer	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64-96 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Withdrawn Rejections

1. The 35 U.S.C. 103 rejection of claims 64 – 83 and 94 – 97 over Harshberger et al. ('002) in view of Harshberger et al. ('044) in the paper dated July 9, 2004 is withdrawn due to Applicant's amendments in the paper dated September 7, 2004.

2. The 35 U.S.C. 103 rejection of claims 84 – 93 over Harshberger et al. ('002) in view of Harshberger et al. ('044) and further in view of McArdle et al. in the paper dated July 9, 2004 is withdrawn due to Applicant's amendments in the paper dated September 7, 2004.

New Rejections

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 64 – 71, 74 – 81, 84, 85, 90, 91 and 94 – 96 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The above listed claims contain the phrase “non-

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coated”, which is not supported by the specification. The phrase is absent from the specification and no clear support is present for the newly presented claim language.

Correction/clarification is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 64 – 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harshberger et al. (USPN 2,202,002) in view of Harshberger et al. (USPN 2,131,044) and McArdle et al. (US Pub. No. US 2002/0066233 A1).

Harshberger et al. ('002) disclose a roofing or siding composition (Page 1, Column 1, lines 15 – 16 and Page 2, Column 2, lines 1 – 5) with granules secured to the surface of a fibrous roofing base by embedding them in a layer of adhesive material chosen from bitumen or asphalt (Page 1, Column 1, lines 16 – 21). The granules are chosen from a mixture of aluminum oxide, iron oxide and silicon dioxide (Page 2, Column 2, lines 45 – 54). However, Harshberger et al ('002) fails to disclose the granules covering over about 95% to 98% of said to surface, the granules being of two different sizes, wherein the first size is greater than the second resulting in a ratio of 1.3:1, the roofing or siding material comprising a composite fabric, a

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reflectivity of about 45% to 99.9%, a average hardness of at least about 3 to 4 Moh, an average opacity of at least 55 – 60% a plurality of said granules including crushed porcelain, said porcelain including silicon dioxide and at least about 25 weight percent aluminum oxide and a total weight percent of aluminum oxide, silicon dioxide of 75 to 85% and an average porosity between 0 and 20%.

Harshberger et al. ('044) teach a roofing material made with a felted material, composite fabric, of vegetable fibers, wool, asbestos or hair (Page 2, Column 1, lines 31 – 34), which is coated with a layer adhesive coating chosen from bituminous material or a resinous type material in which the porous granules are embedded (Page 2, Column 1, lines 38 – 46 and Column 2, line 17) to form a material with granules of two different sizes covering about 95% to 98% of the surface (Figures 3, 5 and 6) for the purpose of making an improved roofing material where the granules have an increased grip with the adhesive layer (Page 2, Column, 2 lines 10 – 16).

Therefore, one of ordinary skill in the art would have recognized that the felt material coated with adhesive and having 95% to 98% of its surfaced coated with granules is well known in the art to as a roofing or siding system to protect building structures from the elements as shown by Harshberger et al. ('044).

McArdle et al. teaches aluminum oxide, alumina, (Page 2, line31), which inherently contains at 15 weight percent, silica (Page 2, line 39) and crushed porcelain (Page 2, line 47) having a diameter between 0.5 and 1500 microns (Page 23, claim 1) wherein the formed granules

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are white non-coated granules (Page 23, claim 1) in the form of a particle for the purpose of making a roofing granule (Page 1, lines 32 – 34).

Therefore, one of ordinary skill in the art would have recognized that the porcelain granule is well known in the art to as a roofing or siding system to protect building structures from the elements as shown by McArdle et al.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the felt composite with 95% to 98% of its surface covered with granules and an aluminum phosphate granule as the particle adhered to the roofing substrate in Harshberger et al. ('002) in order to make an improved roofing material where the granules have an increased grip with the adhesive layer as taught by Harshberger et al. ('044) and McArdle et al..

Regarding the limitations of reflectivity, harness, opacity and porosity in claims 64, 74 and 94, one of ordinary skill in the art would have recognized that the roofing or siding system would have a reflectivity of about 45% to 99.9%, a average hardness of at least about 3 to 4 Moh, an average opacity of at least 55 – 60% and an average porosity between 0 and 20% since Harshberger et al. disclose a roofing or siding system containing aluminum oxide, iron oxide and silicon dioxide (Page 2, Column 2, lines 45 – 54), which is used because of it its light mass and physical strength (Page 2, Column 2, lines 20 – 22) and because of it porosity that gives it good adherence to the adhesive materials (Page 1, Column 1, lines 13 – 21). Therefore, one of

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ordinary skill in the art would readily determine the optimum reflectivity, hardness, opacity and porosity depending on the end desired end results in the absence of unexpected results.

Regarding the limitations of the roofing or siding system containing varying amounts of aluminum oxide, silicon dioxide, iron oxide, calcium oxide and magnesium oxide in claims 64, 66 – 69, 74, 76 – 79 and 94, the prior art element, the mixture of aluminum oxide and silicon dioxide granules (Page 2, Column 2, lines 45 – 54) performs a equivalent function to the corresponding elements disclosed in the specification, the mixture of the aluminum oxide and silicon dioxide in greater weight ratios. That it, the prior art elements performs the function, the ability of the surface granules to reflect light from the surface, specified in the claim in substantially the same manner as the function is performed by the greater weight percentages of the same materials described in the specification. MPEP 2183.

Response to Arguments

7. Applicant's arguments with respect to claims 64 – 96 have been considered but are moot in view of the new ground(s) of rejection. However, since the same prior art is being used in the above rejections, the arguments will be responded to below.

In response to Applicant's argument that neither Harshberger '002 nor Harshberger '044 disclose the composition of the granules as defined in the claims, Harshberger '002 discloses that it is know to use a variety of percentages of aluminum oxide, silicon oxide and iron oxide (Page 2, Column 2, lines 45 – 54). It would have been obvious to one of ordinary skill in the art at the

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time the applicant's invention to vary the amount of each individual ingredient since the amounts stated are preferred amounts and the language has open language, "at least about 80 weight percent". This claim language allows for other percentages to read upon the claim.

In response to Applicant's argument that a coverage percentage of over 95% is not supported by the teachings of Harshberger '044, the figures of Harshberger '044 clearly show that the surface has a coverage of over 95% by the granules (Figure 6) in order to prevent blistering of the finished product (Page 2, Column 2, lines 49 – 51). If the granules failed to cover the substrate at such a high percentage, the layers of material would stick together during storage of the material.

In response to Applicant's argument that Harshberger '044 fails to disclose the use of two different sizes of granule material, Figure 6, clearly shows two different sizes of granule material. The larger granule material is coated on the top surface of the roofing material (#18) and the smaller granule is on a middle surface (#6).

In response to applicant's arguments against the references individually, Harshberger '002 failing to teach a non-coated granule product and both Harshberger references failing to disclose the physical properties of the non-coated granules, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer
Examiner
Art Unit 1772

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[Signature]
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

3/29/05